

Please add the following Claim:

37. The programmable medical device of claim 11 wherein the plurality of entry keys are displayed on the display device and the routine causes electronic disabling of those entry keys which are not required by the current programmable medical device status.--

REMARKS

Claims 1, 3, 8-13, 18-21, 24, and 26-36 are pending in this Application. Claims 2, 4-7, 14-17, 22, 23 and 25 have been withdrawn without prejudice to file in a continuation application, since these claims are drawn to a non-elected species. By this Response, Applicants amended Claim 8, and added Claim 37. Accordingly, Claims 1, 3, 8-13, 18-21, 24, and 26-37 are at issue.

In the Office Action the Examiner objected to Claim 8 because of an informality. The Examiner also rejected Claims 1, 3, 8-13, 18-21, 24, and 26-36 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,885,245, issued to Lynch et al. ("Lynch"). Applicants respectfully traverse this rejection.

In view of the Amendments and Remarks herein, Applicants believe the present application is in condition for allowance and respectfully request notice of same.

Rejection of Claims 1, 3, 8-13, 18-21, 24, and 26-36 Under 35 U.S.C. § 103

The Examiner rejected Claims 1, 3, 8-13, 18-21, 24, and 26-36 as being unpatentable over Lynch. In the Office Action the Examiner stated that Lynch teaches the device substantially as claimed, except for selectively displaying the keys according to the status of the device. The Examiner further took the position that since the device of Lynch is a computerized processing and display unit, that it would have been obvious to use a system of inactive keys shown in "shadow."

The Examiner asserted that this type of system is known in computer systems, such as a disabled section shown in shadow on a Windows NT 4.0 window. Applicants respectfully traverse this rejection.

As explained in the "Background of the Invention" section of the present application, the Lynch patent is assigned to the assignee of the present application. Unlike the present application, the Lynch reference teaches no more than a remote apparatus for remote monitoring and controlling of a medical treatment device. In Lynch, a medical device is disposed in a first room location and the virtual remote monitor and/or controller is disposed at a second room location. (Lynch, col. 1, lines 31-38.) It is the primary purpose of Lynch to provide a remote controller having a visual display that is either identical or substantially identical to the medical device's input device. (Lynch, col. 1, lines 41-49.) (Emphasis added.) As such, when the input device for the medical apparatus in Lynch is a keypad, the virtual input device on the remote controller is a visual display of a plurality of keys having substantially the same configuration as the keypad on the medical device. (Lynch, col. 1, lines 50-53.) This operation, including the programming sequencing thereof, is specifically disclosed in Lynch at column 9, lines 12-38:

Figure 10 illustrates a flowchart 450 of the basic operation of the remote monitor/controller 20. Referring to FIG. 10, at step 452, if the user selected the command mode described above, the routine branches to step 454 where a display of the keypad 90 of the infusion pump 12 is shown on the display device 78. The display shown at step 454 comprises a plurality of virtual entry keys having a spatial configuration substantially the same as the entry keys of the keypad 90 of the particular infusion pump type which is connected to the remote monitor/controller 20. An example of such a visual display is shown in FIG. 11A.

It should be noted that the virtual keypad shown in FIG. 11A is the same as the actual keypad 90 of the pump 12, which is shown in FIG. 3 (except that the on/off key of the pump 12 is replaced with a reset key in the virtual key display). Where a different type of pump having a different keypad is attached to the remote monitor/controller 20, that particular keypad is displayed on the display device 78. An example of a different virtual keypad is shown in FIG. 11B. Various virtual keypad configurations may be stored in the memory of the remote monitor/controller 20, each virtual keypad configuration having a pump type code associated therewith. Since the remote monitor/controller 20 initially determined the type of pump to which it was attached (via the routine of FIG. 9), it can retrieve from memory and display the corresponding virtual keypad for that type of pump. (Emphasis added.)

First, the Applicants assert the Examiner has failed to present a *prima facie* case of obviousness. As such, the §103 rejection is improper. It is the burden of the Patent and Trademark Office to establish a *prima facie* case of obviousness when rejecting claims under 35 U.S.C. §103. In re Reuter, 210 USPQ 249 (CCPA 1981). To establish a *prima facie* case of obviousness, three basic criteria must be met: first, there must be some suggestion, incentive or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art references must teach or suggest all the claim limitations. See In re Geiger, 815 F.2d 686, 688 (Fed. Cir. 1988). Obviousness cannot be established by combining the teachings of a reference to produce the claimed invention, absent some teaching or suggestion supporting the combination of the references. ACS v. Montefiore Hospital Systems, Inc., 221 USPQ 929, 933 (Fed. Cir. 1984). Furthermore, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the Applicant's disclosure. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). Applicants respectfully submit there is no teaching or suggestion to modify the disclosure of Lynch, or to combine Lynch with the cited Windows® information that would render the claims obvious.

As shown above, the entire purpose and teaching of Lynch is to provide a remote display that is identical to the display of the medical device it is controlling. To be able to perform this operation, the remote display/controller in Lynch has stored in its memory the actual displays of a variety of medical devices. Thus, the first function conducted by the remote display/controller in Lynch is to identify the medical device it is supposed to mimic, and the second function is to display its keypad. Further, and most importantly, at all times throughout the operation of the remote display/controller in Lynch, the display will be the same (i.e., the entire keypad will always be displayed and each key will be active.) As admitted by the Examiner, Lynch has no teaching or suggestion to have selective display of the keys of the medical device according to

the status of the device. Further, there is no suggestion in Lynch to modify that invention to provide for a disabled or inactive portion of a displayed keypad. Rather, Lynch specifically teaches always providing the entire keypad display, identical to the keypad of the specific medical device being utilized, of any of a number of possible medical devices. Thus, Lynch expressly teaches away from the concept of Applicants' recited claims. Accordingly, attempting to combine the references as suggested by the Examiner is not only improper in that it is an attempt to render the claimed invention obvious based on the hindsight learned by the Applicants invention, but furthermore there is no teaching or suggestion to make the combination as is required. See In re Vaeck, 947 F.2d at 488; ACS, 221 USPQ at 933. Accordingly, Applicants respectfully submit Claims 1, 3, 8-13, 18-21, 24, and 26-37 are patentable since the Examiner has failed to present a *prima facie* case of obviousness.

Second, notwithstanding the above, Applicants submit that even if the Lynch and Windows® references were properly combinable, they would not render the claimed invention obvious because they do not teach or suggest all of the claim limitations. Unlike the Examiner's cited references, Applicants' claimed invention is predicated upon a routine which provides for the selective display/enablement of certain required keys of the medical device responsive to the identified status of the device. Specifically:

- Independent Claim 1 recites “a routine, responsive to a status of the programmable medical device, for generating a display of a plurality of entry keys disposed in a spatial configuration and for selectively displaying on the display device only those entry keys which are required by the status for inputting commands to the programmable medical device;”

- Independent Claim 11 recites “a routine, responsive to a status of the programmable medical device, for selectively enabling only those entry keys which are required by the status for inputting commands to the programmable medical device;”

- Independent Claim 21 recites “a routine, responsive to a status of the programmable medical device, for generating a display of a plurality of entry keys disposed in a spatial

configuration and for selectively displaying on the display device only those entry keys which are required by the status for inputting commands to the programmable medical device;"

- Independent Claim 30 recites a remote controller comprising "a routine, responsive to a status of the programmable medical device, for generating a display of a plurality of virtual entry keys disposed in a spatial configuration and for selectively displaying on the display device only those virtual entry keys which are required by the status for inputting commands to the programmable medical device;"

- Independent Claim 35 recites a method comprising the steps of: (a) determining the status of the programmable medical treatment device; (b) selecting those entry keys which are required by the status for inputting commands to the programmable medical device; and (c) displaying only those entry keys which are required by the status for inputting commands to the programmable medical device; and,

- Independent Claim 36 recites a method comprising the steps of: (a) determining the status of the programmable medical device; (b) selecting those entry keys which are required by the status for inputting commands to the programmable medical device; and (c) enabling only those entry key which are required by the status for inputting commands to the programmable medical device.

Neither Lynch alone nor Lynch reference in combination with the Windows reference discloses the above recitations or renders the above recitations obvious. With regard to Lynch, the Examiner has acknowledged that Lynch does not disclose the above features. Applicants further submit that Lynch does not only not disclose such features, but as explained above, actually teaches away from such limitations. Merely adding the Windows reference does not render obvious the recited: routine which is responsive to the status of the medical device, a routine responsive to a medical device which provides for the selective display of only those required keys, a routine responsive to a medical device which provides for the selective enabling of those required keys, a routine responsive to a medical device which selectively displays

virtual entry keys, and the methods utilizing such steps therein. The Windows reference does nothing to suggest or render these functions obvious. Such routine ultimately selectively displays or enables those entry keys required by the status for operating the medical device. As such, unlike the device disclosed in Lynch, those keys which cannot be pressed or activated at each programming or operational step are not displayed or are otherwise indicated to be inactive on the remote monitor/controller's display based on a response to the status of the medical device. By limiting the available choices of virtual input keys to the use of Applicants' medical apparatus is far safer and easier to use. The likelihood of potential mistakes, such as hitting incorrect key strokes and having to back up and re-enter keys for a particular step is reduced. Thus, the time for making the appropriate choices is reduced and the opportunity for incorrect inputs is reduced. Accordingly, Applicants submit that even if the references were properly combinable there is no teaching or suggestion leading to all of the claimed recitations of independent Claims 1, 11, 21, 30, 35 and 36.

In summary, the Applicant respectfully submits the Examiner has failed to present a *prima facie* case of obviousness. First, the references are not properly combinable. Second, even if the references were properly combinable, they do not teach, suggest, or render obvious all of the limitations of the independent claims. Further, each of the dependent claims necessarily includes all of the limitations of the base independent claim. If an independent claim is non-obvious under §103, then any claim depending therefrom is also non-obvious. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). As such, Applicant submits all dependent claims are not obvious for the above reasons as well.

Conclusion

In view of the amendments and remarks herein, it is submitted this application is in condition for allowance. Such action is respectfully requested. Further, the Examiner is requested to contact the undersigned if the Examiner has any questions concerning this Response or if it will expedite the progress of this application.

Respectfully submitted,

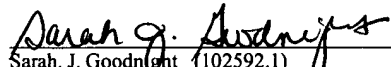
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